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CLAY MODELING
IN THE
SCHOOLROOM

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CLAY MODELING

IN THE

SCHOOL-ROOM.

A MANUAL OF INSTRUCTION IN
CLAY MODELING FOR THE KINDERGARTEN AND SCHOOL,
BASED ON THE CURVED SOLIDS.

BY

ELLEN STEPHENS HILDRETH.

MILTON BRADLEY CO.,
SPRINGFIELD, MASS.
BOSTON, NEW YORK, ATLANTA,
PHILADELPHIA, SAN FRANCISCO.

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ELLEN STEPHENS HILDRETH.

TO

SUSAN E. BLOW,

IN APPRECIATION

OF HER GREAT WORK IN

FOUNDING THE FREE

KINDERGARTEN OF ST. LOUIS,

THIS MANUAL IS

RESPECTFULLY INSCRIBED,

BY THE AUTHOR.

PREFACE.

Many articles have been written regarding the use of clay in the schoolroom for various educational journals during the last few years, but when the publishers of this little book have been asked to recommend suggestions for a complete course in clay modeling they could find nothing of the kind. Meanwhile, like nearly all the other gifts and occupations of the kindergarten, clay modeling has found its way into the primary school and is being everywhere practiced. But there are many teachers, who, although they are anxious to secure its benefits for their pupils, feel at a loss just how to manage the clay so as to secure the best result from its use.

The author trusts that this treatise will prove a boon to such teachers. She has made a study of clay modeling for many years. The sequence or school of modeling here presented was arranged by her in the spring of 1876. Briefly stated, Clay Modeling In The Schoolroom is a manual of instruction in the knowledge of form, comprising a series of exercises based on the curved solids, sphere, spheroid, ovoid, cone and cylinder.

The entire series was modeled in wax and sent to the Centennial in connection with other kindergarten work from St. Louis, the exhibit receiving the Centennial medal. In 1878 a similar series was sent to the Paris Exposition and afterwards presented to Madam Von Marenholtz Bulow. In a letter to the writer she gives it her unqualified indorsement.

Since that time it has been used in the public kindergartens of St. Louis with such success that it has also been introduced into the normal school. It has the undoubted sanction of use and experience. With it any one can learn to model and any child learn to see form.

The best results in form study are secured with pupils who are provided with clay from which to make the forms for themselves. Suppose, for instance, that the attempt is made to imitate the sphere in clay and the result is not wholly satisfactory. The contrast between the wooden model and the clay copy of it will show clearly where the fault lies. Having made the sphere in clay the child can convert it into a cube by flatening the sides on the modeling board. Illustrations like these might be multiplied indefinitely to show the advantages of clay modeling as a part of form study.

It will often happen that the teacher who proposes to introduce clay work as a part of the exercises of the average primary or ungraded school must be prepared to meet a variety of objections. The parents of her children will be very apt to regard clay modeling as a foolish way of spending precious time, and also to argue that the occupation must be an untidy one, soiling clothes, fingers and furniture. And she herself may have misgivings at the outset as to how she can possibly find time for a task which, although it may be both delightful and instructive, is so entirely out of the usual course, or how she shall secure the necessary material. But having first convinced herself that modeling is the thing to have in her school, the probabilities are that she will find ways and means of introducing it and making it popular throughout the district.

A teacher of experience in this line of work says: "The universal passion in a child to mold dough, mud, snow, etc., and everything he can mold, into cookies, fruit and every conceivable thing, ought to secure to all in mature years the ability to make what is made to some extent artistic. This would be the result if the desire was encouraged and cultivated as one of the important factors in education. No half-hour in the week is spent more delightfully or in a more useful way by the little kindergarten child than that given to the clay. Many forms will be suggested, as an apple, peach, pear, egg, etc., there being no end of the child's capacity for 'thinking up' forms to make, and the kindergartner has only to exercise tact and skill in keeping him within proper limits while she respects his imaginative flights and prevents his efforts from being aimless and desultory."

Too much stress cannot be laid on the idea expressed in the closing words of the above quotation. Clay work in the schoolroom must constantly combine beauty and use and never be allowed to drift into aimless play. In presenting this book to the public the author hopes that she may do something to secure the general adoption of methods in clay modeling that are thoroughly educational, being at the same time both systematic and scientific.

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Clay Modeling In The Schoolroom.

MODELING in clay is valuable educationally because it enables us to comprehend and reproduce ideas of form. With such knowledge we convert raw material to our use. It is also valuable as a stimulus to observation, developing through reproduction the faculties of classification and generalization.

The art of modeling deals with universal types of form, modified, blended and combined. These types are the curved solids, and in the following pages a definite method is given by which educators may utilize modeling in the discipline of the the mind, at an age when sense impressions are strongest.

The exercises given in this book are based upon the sphere, spheroid, ovoid, cone, cylinder and cube. The last is introduced merely to complete the knowledge of the spherical solids.

The method followed is to keep the curved solids constantly in view. In order to do this each solid is first made, and then natural objects are imitated by adding to it. These additions being relatively small do not detract from the correct and exact impression of the curved solid foundation. This geometric base for convenience is called throughout the exercises the normal type, and may be any one of the above-mentioned solids.

The natural or artistic form based upon the solid is called a typical object.

Various methods are used in clay modeling. The art has workers to-day who probably represent every stage of its development. Undoubtedly the earliest method is that still practiced in oriental countries and Mexico. The Pueblo Indians manufacture all their pottery for domestic purposes by winding long ropes of clay into hollow forms, keeping the interior and exterior smooth as the work progresses, by scrapers of various patterns and sizes, made from the hard rind of the "calaba" or gourd. These articles are fired in the open air, the pottery forming a circle between two fires, a central one and an outer ring.

This pottery when broken frequently shows that the ball and cylinder, or whatever parts were combined in the article, had each been made separately in the clay and united before firing. The writer who personally investigated this method in Mexico was impressed with the evidence of the truth of a theory she had originated from purely intellectual premises.

The potter's wheel represents the modern method of domestic art-modeling, although the wheel was probably one of the earliest industrial inventions. This is a method of manufacture subsidiary to artistic modeling. The lump of clay is cut to the required shape by what might be called revolving knives.

Modeling in clay for sculpture is the highest type of the art. Sculpture represents principally the human form in stone or metal. Modeling for sculpture, or the formation of the pattern by which the statue is to be cut or the metal molded, is usually done by the building-up process, lumps of clay being piled about the wooden or wire frame until the figure begins to assume a likeness to the desired design. The Mexican pottery and the model for an Italian marble statue are equally the expression of abstract ideas of form.

In testing a theory by practice peculiar difficulties are met. In connection with the following exercises there will at first be encountered a strong desire among children to make some things hollow. This is especially true of familiar objects. The correct method of overcoming this is to state the true conditions of art. It is not nature, but a representation of nature. To the child say, "These are not real things, they are playthings. These are play cups, bowls and pitchers; we will play that they are full of coffee, soup or water." This statement is usually sufficient. Any attempt to produce hollow forms before the curved solids are thoroughly understood will result in nondescript forms of no educational value. By keeping the normal type unchanged the children soon learn to classify familiar objects with it, and to reproduce their semblance with ease.

Every teacher of a class should have a set of solids in wood. They can be purchased where school supplies are sold, or made at any wood-turning shop. A similar set of half-solids, which show the plane forms made by the cross sections, is desirable, but not absolutely necessary.

These normal types and their parts must be used in every exercise, so that the children may become perfectly familiar with them. If they cannot be bought they must be made in wax, putty or clay. The teacher must thoroughly master them, and be able to make them deftly and quickly when needed.

The half-solid, although only a part of a normal type, is more frequently met with in art than the perfect solid. It is practically important because it shows the plane, and also because it can be used to illustrate moral and mental truths. Half-hearted, half-willed and half-done, can be as readily comprehended by the little ones as halves, quarters or eighths.

The directions for making each one of the curved solids constitute the formula for that type.

In joining half-solids with other forms concave surfaces frequently result. In complicated combinations the principle of opposites is seen to dominate concave and convex surfaces, blending and combining them in exquisite results, the convex line of the body of an article being reversed in the opposite concave curve of the base. This simple principle is a great aid to the rendition of artistic forms. The convex surface being essentially an exterior surface it is chiefly used in the following pages, although adult classes might experiment in making concave articles from the half-solids.

A set of plain surfaces may easily be made for use in the exercises. These, comprising circle, ellipse, oval, oblong and square, should be made about one-quarter of an inch thick, and not have the centre cut out, as purchased models of this class are apt to have.

Like the square they represent surfaces, not lines or edges. Anything approximating a surface in dimension may be modeled on a plane base. With the plane surface adult classes may experiment in breaking the outline. A bit cut from the circle will roll into a stem for the part left, making an exact outline of a leaf; this should only be done after the geometric forms are thoroughly comprehended. The suggestion is given here merely to show how a simple foundation can be further utilized. Like making the half-solids concave, it is not intended for the use of beginners in clay modeling.

The theoretical order of modeling as given in the following pages should be followed by an adult in learning the system. In giving it to classes the order may be varied. In Kindergartens present sphere, cube and cylinder before giving other forms or half-forms, and with all young children give the entire series of solids before giving the half-solids or planes.

A visit by the teacher and class to a pottery is an incentive to purpose and interest in the work. This should not be omitted if it can be managed.

The term teacher is used throughout these pages because it is of wider application than mother, director or kindergartner.

OBTAINING THE CLAY.

The clay used in modeling should be "artists' clay." The price is very trifling, never more than a few cents a pound, and ten or twelve pounds is a good supply for twenty or thirty children.

This clay may be bought at a pottery if one is convenient. In such case ask for unmixed, washed clay. Clays prepared for firing are usually unfit for modeling. When clay is purchased at a pottery it is usually wet and requires no care, except to keep it soft and damp by means of wet cloths. When bought of a dealer in school supplies it is shipped dry, in lumps or powder, and requires some preparation before using.

CARE OF THE CLAY.

If the clay is purchased wet, place it in a wooden tub or pail which has been thoroughly soaked in water. Cover it with several folds of dampened cloth. Before using see that the entire mass is soft and elastic, and about as stiff as nice, firm bread-dough.

If the clay is dry, in lumps or powder, tie it up in a large cloth, as if it were a pudding. Place the cloth full of clay in a wooden vessel, and pour in water enough to cover the clay. After one or two hours' immersion take out the cloth full of clay, and, without untying, knead thoroughly until the mass seems plastic, and perfectly free from lumps. Open the cloth and examine it from time to time while kneading. If too wet allow it to dry off, if too dry return to the water. When properly kneaded it will have a springy feeling under the fingers, and when rubbed smooth will glisten as if oily. It must not be wet enough to be sticky, or dry enough to feel hard to the touch. A little practice will enable the teacher to tell when it is just right. When worked into an elastic mass replace in the empty pail the clay which is still in the cloth, and cover with several other folds of wet cloth. This keeps it in good condition.

After each exercise any remnants or broken objects from previous exercises may be thoroughly wet and replaced in the cloth, at one side, in order that they may be softened and rekneaded. In this way no clay is wasted.

The condition of the clay must be looked after the day before an exercise and the typical object made ready at that time. The clay can also be cut for distributing and otherwise prepared for the exercise. This is absolutely necessary where there are many children, and is advantageous where there are but few.

To suppose that the clay is in any sense untidy is a false idea. No fear of soiling clothing or roughening the hands need be felt while handling it; neither will it soil the most delicate fabric, nor is it injurious to the skin.

INVENTION OR DESIGN.

In all educational work the principle of originality is the one which arouses interest, assists progress and enriches humanity. It is the foundation stone of the Kindergarten, it rises to steeple heights in the University. To originate, develop or ascertain something before unknown and untold is the perfection of individual mental effort. Man made in the image of his Creator is a creative being. Creation is his highest capacity. Time, strength and effort are well spent in the development of the inventive or designing faculty.

In this manual the period for free activity provides for such development. By free activity or invention is meant the making by the children of objects for which neither pattern nor dictation are given. Each child reproduces in clay something he has previously seen or thought of; this having been grasped by the mind is expressed by the fingers in clay. It is an educational process of great value, and must never be omitted. The time spent in comparison of normal type, typical object and the objects based on them bears directly upon invention.

During the time for free activity do not interfere with the child while busy with the clay. The shapeless pile may represent a beautiful ideal to him. A foreign touch might ruin it. If the child is absorbed in the work the result is attained. The very natural desire of the teacher to have something to show for the time spent must be put aside and the child let absolutely alone while busy with the clay. The child that does not actively work at the clay will require some attention, and if disorderly will require even more. A suggestion, a direction or a helpful touch may be given. A story may be told, a hunt may be taken to find something to make. Anything may be resorted to which will arouse interest where it is lacking Encouragement must be judiciously given to produce some result that is neither from dictation nor pattern, and to make the children concentrate their play into a purpose. When they once realize that they can express their thoughts in clay all difficulty is over. The rest is a question of practice.

GENERAL DIRECTIONS.

In the modeling exercises small boards or even slates may be used to work upon. When the class is composed of very small children an oilcloth for the entire table is preferable, dispensing with boards. This is washed off after each exercise and rolled up before putting away. The children sing while their hands are folded on the table and the boards are placed in position by an assistant or one of the older pupils.

After this is done the normal type and typical object are placed upon the table, the latter having been carefully prepared before the exercise in either wax or clay. The teacher then engages the children in a comparison of the two objects, concentrating her remarks and questions upon their form and use; the answers about use connect the exercise with the child's life and experiences. The children will talk freely and should be permitted to do so, the teacher holding them to the underlying ideas of form in the exercise by enlarging upon such of their questions and answers as are especially pertinent. This involves a principle of great importance; we do not play and chat with the little ones merely for recreation or for the sake of the play. We do these things to develop and guide them. We talk and play that the child's efforts may be directed by thought into the path of civilization and Christianity, and while the child should have all possible freedom in these exercises, the teacher has not. She talks with the child in order to lead, she works with him in order to guide him. She must keep herself well in hand and direct the table talk of the little ones into the desired channel. Freedom of speech and the sense of companionship fully develop the play idea.

A story or a suggestion of purpose in the work, such as making a present for mamma, will frequently add to the interest of some special object to be made. In comparing objects, talk with, and not to the children about them. Ask questions as follows:—

"Where are they alike?" "How do they differ?" "Can you put your finger on the place where they are alike?" "Now where they are not alike?" "What is this one used for?" "What can we do with this?" "What can this object do?"

Answers: "A table stands." "A sphere rolls." "A dog barks." "A dish can hold things." "Leaves grow," etc. When two normal types are shown together, as sphere and spheroid, let the child sound them upon the table, first without and then with the eyes blindfold. Children will soon learn to detect the difference in sound. With opposite types like cube and and sphere this difference is very marked. Children should be encouraged to bring objects like the normal types, and always to point out the resemblance. A little child once brought me a bit of broken glass as something like the ball. On being asked to show how it was like the ball, the child promptly placed his little finger in an almost imperceptible curved hollow. The child's mind, full of the impression of curves, took no note whatever of the angles. This shows that great care is requisite, not to misunderstand and underrate the efforts of the little ones. Be prepared to answer the child's questions intelligently. Question the children as to what they have seen and thought about the typical object or something like it. Do not try to cram the children with information. Let them tell you what they have found out for themselves. Kindergartners should base these talks upon Frœbel's method of object teaching.

After the above talk is over, clay is distributed, the rule being to give each child a lump as big as his fist. While this is being done the children sing in concert, the hands being folded upon the table. This singing must be repeated every time the clay is given out and when the class is working in concert. In invention or free exercise, each child is given clay as it is needed. After the first distribution of clay, notice if any has been left over from the last step in the process. If so remove it, when fresh clay is given. This plan keeps the children in good working material. Their warm hands dry the clay very rapidly. Dry clay cannot be modeled and it must be kept in good condition while it is being worked.

The exercises on normal types and typical objects should always be in concert, the teacher giving directions and working with the children, who learn in this way both through imitation and dictation, the teacher taking every step in the work as she dictates. She tells how to do it, shows how it is done, and then shows the result. Time must be taken at each stage of the process to notice the progress of each child, giving where needed the helpful touch and suggestion necessary to success. In this way opportunity is gained for the slow workers to "catch up."

At the different stages of the work where fresh clay is needed distribute only sufficient to make the next part. Judgment in regard to this comes from thought and experience. An important thought underlies this; clay is material, if too much is given it will perhaps be carelessly used or wasted. Economical use of material cannot be too early inculcated. Moreover, a child receiving just the right amount of clay to make the necessary part, is not tempted to a disorderly use of it, and his respect for his material is increased as he sees what can be done with it. He also comprehends more readily and directly the relation of the parts to the whole object. Ideas of relative size, position and proportion are also definitely formed.

In joining parts of the object together smooth gently with the tip of the finger. A concave surface marks every joining. Do not smooth too much, as pressure has a tendency to spoil the life-like curves, and thus destroy the resemblance. Do not be too anxious for a pretty result. It is the child's purposeful effort that is valuable. When markings are to be made a small stick sharpened to a point or a large pin may be given the pupil as soon as the work is ready to mark. Do not give it to him before.

At the close of the exercise each child places his work well back on the table, ready to be taken home or to be put away. The loose clay left is gathered up and put upon the board. Make it a point of honor with the child to keep the clay from the floor. Aid the backward child in securing a result. Do this by patient showing, with now and then a helpful touch. Never do the work for the child.

Do not neglect the singing. Music to which a child listens will not take the place of his own singing which has a vital, psychical value. When possible exhibit pictures of the objects made, emphasizing the fact that modeling shows the whole object, a picture only one part or view of it. Pictures may be made upon the blackboard or slate.

Allow ample time for free exercise. The teacher should practice designing fresh objects. Follow the order of exercise carefully, especially with large classes of small children.

The teacher must praise her class when they have done well, the class in concert praising the successful effort of an individual child. The Kindergarten method of praise is the best to follow.

ORDER OF EXERCISE.

Have the table properly arranged. (See General Directions).

Singing by the class and the hands folded upon the table.

During singing place the normal type (or section of it, such as half-solid etc.) and typical object upon the table.

Compare these together and with other objects, permitting the children to handle them as well as see them.

Have the class sing while these objects are replaced upon the table and the clay is distributed.

Form the typical object, the teacher directing each step in the process and working with the children. Praise success. After completing the typical object have each child name some similar object.

Free exercise. Let the children try to make any of the objects named, each selecting its own object to work upon.

With large classes adhere strictly to this order of exercise.

NORMAL TYPE AND TYPICAL OBJECT.

Normal type is a term used to denote any of the curved solids.

For convenience the same term is used in referring to the half-solids. It may also be used to refer to the planes. The half-solids and planes are really only parts of normal types. In each series of exercises we wish the child to learn the form, to recognize it in familiar objects, and also to reproduce it in making those objects.

Typical object is a term used to denote the object based upon the normal type. It is a representation of a natural or manufactured article resembling the normal type in its essential form.

The following exercises are divided into seven series. Each series is based on a normal type, and includes the objects which resemble it; the list given below includes an example under each series :—

EXAMPLES.

First Series.

NORMAL TYPE, SPHERE.
TYPICAL OBJECT, SUGAR BOWL.

Second Series.

NORMAL TYPE, OBLATE SPHEROID.
TYPICAL OBJECT, TURNIP.

Third Series.

NORMAL TYPE, PROLATE SPHEROID.
TYPICAL OBJECT, SOUP TUREEN.

Fourth Series.

NORMAL TYPE, OVOID.
TYPICAL OBJECT, PEAR.

Fifth Series.

NORMAL TYPE, CONE.
TYPICAL OBJECT, FUNNEL.

Sixth Series.

NORMAL TYPE, CYLINDER.
TYPICAL OBJECT, PUMP.

Seventh Series.

NORMAL TYPE, CUBE.
TYPICAL OBJECT, HOUSE.

FIRST SERIES.

NORMAL TYPE,
Sphere.
TYPICAL OBJECTS,
Sugar Bowl,
Lunch Basket,
Globe Fish.

NORMAL TYPE,
Hemisphere.
TYPICAL OBJECTS,
Toadstool,
Nelly Bly Cap.

NORMAL TYPE,
Circle.
TYPICAL OBJECTS,
Sewing Basket,
Bird's Nest.

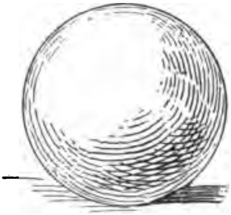
NORMAL TYPE, SPHERE.

This series of exercises is divided into three parts, the sphere, hemisphere and circle, or solid, half-solid and plane.

Follow these directions before beginning an exercise:—

Have the clay properly prepared (see "Care of the Clay") and a sphere carefully made for the children to imitate placed upon the table, which has been also prepared for the work (see "General Directions").

Question the children about the sphere. Allow them to handle it. Talk with them about it, and have them tell you that it is round and will roll in any direction. When they are familiar with the form of the sphere and its name, and can select it from a miscellaneous collection of objects, they are ready to reproduce it in clay.



NORMAL TYPE, SPHERE.

While the clay is being distributed the children should sing. When all have clay, the sphere is made according to Formula I.

FORMULA I.

ROLLING THE SPHERE.

At the sound of a chord on the piano or the tinkle of a bell, the children take up the clay which is before them. At a second chord they roll the clay thrice around between the palms, the fingers being turned back, and then turn it over. At a third chord these movements are repeated. A fourth chord and repetition of these movements will usually produce a very good clay sphere. This is placed on the board before the child, and the hands are folded.

There is an irresistible fascination to the child in rolling the clay, and he will delightedly roll a bit of it in his hands until the ball is utterly worthless for modeling, the heat of the hand drying the clay very rapidly. To counteract this tendency the sphere must be rolled systematically by the aid of music and some drill or practice by mother, teacher or Kindergartner is necessary, before attempting to show the children.

Follow the above formula at the beginning of each exercise in this series.

TYPICAL OBJECT, SUGAR BOWL.

Under the sphere we classify those objects which most closely resemble a complete sphere in form. Such objects will have the main part of a spherical form and are called typical objects.

TYPICAL OBJECT, SUGAR BOWL.

The sphere and sugar bowl which have been previously prepared by the teacher are placed side by side upon the table, so that the children may see the normal type and typical object together. Then question the children about the form of each, aiming at the fact that the sugar bowl is most like the sphere in the part that holds the sugar.

Let each child at the table handle both sphere and bowl in order that they may feel, as well as see, the similarity of form in the two objects. One third of the time allotted to a lesson can be spent in finding out and telling the points of resemblance between the normal type and typical object, the teacher gently guiding the talk, noting all the children's sayings that are pertinent to the lesson, and ignoring those that are not, thereby repressing any tendency to wander from the subject.

After each child has examined the sphere and sugar bowl let them be replaced where they may be seen.

The children fold their hands and sing while the clay is distributed for the sugar bowl, then follow Formula I and roll the sphere for the main part of the bowl.

The children sing again, while a second and smaller bit of clay is given to each child; the hands are to be folded and the clay sphere should rest untouched upon the table during the singing. When each child has received the clay, the teacher takes her own piece, and Formula I is again followed in concert. This little sphere is then flattened slightly on the palm of the hand and pinched to a point making a tiny pyramid.

The teacher must tell the children this, showing each stage of the process, and stopping at times to examine the work of each child. The little pyramid is placed upon the table with the point up. The large clay sphere which has not been handled since making it, is now placed carefully on the pyramid which forms its base.

Another bit of clay is then given to each child for handles. Teacher and children roll these bits into long strings or ropes, the teacher keeping a watchful eye upon the little ones to see that they stop rolling when the rope is in good proportion to the size of the sugar bowl. The workers then separate each rope into two pieces of the same length, and fasten them for handles to the clay sphere which was placed on the base. A very little bit of clay (usually enough has been pinched from the handles) is then rolled into a sphere and placed on the top of the sugar bowl. This is the knob or handle of the lid. With a large pin draw a line around the bowl where the upper part of the handles are fastened. This marks the lid, and completes the sugar bowl.

If the children have been industrious and tolerably successful they should be praised by the teacher. If a particular child has done well let the other children praise him, using the kindergarten formula and singing, "Alice has done very well." Alice at the close singing, "Thank you." Teachers who have not seen a kindergarten can easily penetrate the graciousness and significance of this praise lesson by having the children practice it as occasion arises. Children will not need lengthy explanations in order to seize its spirit.

The completed bowls are then placed upon a shelf or other secure place. The children fold their hands upon the table, while fresh clay is given to each one. When all have the clay they are told to make anything they like, and perfect freedom in carrying out their childish ideas should be allowed.

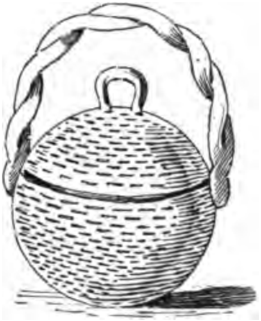
No misuse of the clay, throwing it about, dabbing bits of it on each other, etc., should be tolerated for an instant. A child who does this must be patiently remonstrated with, telling him to watch the others until he thinks of something to make; or some simple object may be suggested to him by the teacher; if still inclined to be disorderly with the clay, it must be taken from him.

Usually the children work with intense eagerness, producing most uncouth and grotesque figures of men, snakes and animals. This must not discourage the teacher. All art in its beginnings was grotesque, particularly all semblance of the human form. All children pass through that stage of development, and the period for free activity is provided for, and it must not be omitted.

The comparison of the normal type and typical object, the making of one typical object, and the period for free activity will usually fill the time for one exercise.

TYPICAL OBJECT, LUNCH BASKET.

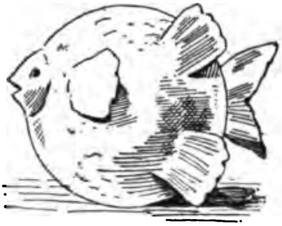
The sphere and basket, previously prepared by the teacher, are placed upon the table. A comparison of the two is then made, the teacher questioning the children, finding out and showing wherein the basket resembles the sphere; that is, in the part intended to hold the lunch. The children will always speak of the contents of the basket in this comparison and the teacher should particularly notice when the children mention an article that is similar to the sphere in form, as circular dishes, fruit, etc. After this talk, while the children sing, the hands are folded and clay for the basket is distributed. Then follow Formula I. Place the completed sphere on the table and give a very little bit of clay. Roll this into a rope and fasten upon the upper part of the sphere so as to form a ring for lifting the lid.



Then another piece of clay is given to the children and rolled into a rope between the palms. By rolling the rope very slender and doubling it, twisting it slightly, a very good imitation of a wicker handle is made. The ends of this rope are fastened at the sides of the sphere, the handle standing up straight. Children old enough may imitate wicker-work on the basket by making a "1 up and 1 down" pattern in horizontal lines with a large pin. A heavy mark is drawn around the sphere through the points where the handles are fastened and completes the basket.

TYPICAL OBJECT, GLOBE FISH.

Place the sphere and globe fish previously prepared upon the table. Chat with the children about the fish in general and bring out the difference between this and many other kinds of fish. (See Diodon, Webster's Dictionary). The globe-fish is found in Southern seas and little folks may have seen it stuffed and for sale in some of the southern cities. It is common in New Orleans.



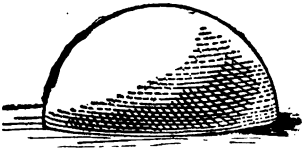
TYPICAL OBJECT, GLOBE-FISH.

After the chat and comparison with the sphere, follow Formula I. Place the completed sphere upon the table and distribute to the children small pieces of clay. Then in concert roll these into spheres and flatten slightly. Then pinch out a little bit from each side. Hold it carefully by the opposite unbroken side and press it gently upon the sphere. This makes the tail. The mouth of the fish is made by taking up the little bit of clay left from the tail, rolling it into a sphere, and placing it just opposite the tail. Then with a sharpened stick or large pin divide this projection by a sharp cut running downward. A small piece of clay is again given. This is rolled into a sphere, flattened and divided into two pieces for the fins at the back. These are carefully placed one above and one below the tail. Another bit of clay is given and prepared in the same way, for the fins on the side of the body. These are directly on a line with the mouth and tail, but are nearer the mouth at the the under part. The spines may be then marked with a pin and a little hole gouged for the eyes on each side, by sticking the pin into the clay and moving it around once or twice. If the children are very small omit the spines.

After an exercise where all work together give the children each a small lump of clay, (say three cubic inches) and allow them to make whatever they choose, always endeavoring to have the child name an object that he makes. A bunch of grapes, a branch of currants or cherries, or an apple or peach with short stem may be suggested to a child, who seems at a loss what to make. These may be placed upon a flat piece of clay so that moving will not break them.

NORMAL TYPE, HEMISPHERE.

Have the spheres and two hemispheres upon the table. These may be of clay, but would be more lasting if of wood or wax. Let the children handle and compare them. Let each child place the halves together. Give ample time for this that an exact idea of halves and whole may be obtained. It will not be time wasted if nothing else is done during the exercise. Talk to the children about doing things with half-will or half-heart. Ask them what half-done means. If clay hemispheres are used they may be lightly joined together before bringing to the table, allowing some child to separate them and then rejoin them. Have each child name something like the hemisphere. Then draw attention to the circular face, the flat side of the hemisphere. Have the children show where it resembles and where it is unlike the sphere. Let each child feel the difference between the flat and the convex surface. Have each one name or show a similar surface, circular, flat and convex.



NORMAL TYPE, HEMISPHERE.

Under the hemisphere we classify those objects which most nearly resemble a hemisphere in external form. The hemisphere for convenience is referred to as a normal type and typical objects are based upon it.

TYPICAL OBJECT, TOADSTOOL.

Distribute clay while the children sing. Follow Formula I. After the spheres are made the children sing while the teacher divides each one into halves. With a very large class it is better to prepare the hemispheres for the children before the exercise, distributing them in place of the first clay. During the time for free activity the children may try cutting the sphere into halves. They will readily see that the clay sphere must be handled very carefully or the beautiful round shape will be spoiled.

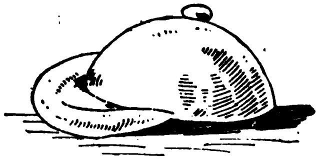
TYPICAL OBJECT, TOADSTOOL.

Having the hemispheres before them, they may prepare to make a toadstool. A small bit of clay is given to each child. This is rolled into a thick rope for a stem. The hemisphere is placed upon one end of the stem, with the other end standing upon the table. A little talk about toadstools and where they are found comes next. Omit all allusions to edible fungi, for obvious reasons. Let the talk be imaginative and connected with the form. A bright teacher can originate a story of a fairy needing a parasol, etc.

TYPICAL OBJECT, NELLY BLY CAP.

This is a very simple form. Distribute the clay hemispheres to the children. Then distribute small bits of clay. Roll these bits into ropes. Have the children flatten them and bend into a semicircular form. Attach to each side of one hemisphere. These little caps always delight the children.

For the period of free activity the unrestrained freedom to make hemispheres is good exercise. Allow the children to try to cut them and also to make part of the sphere flat by tapping it repeatedly upon the table.



TYPICAL OBJECT, NELLY BLY CAP.

A cup or a salad bowl or other simple objects may be suggested for modeling.

NORMAL TYPE, CIRCLE.

Under the circle we classify those objects which in form most nearly resemble a circular tablet. The circle for convenience is referred to as a normal type and typical objects are derived from and based upon it.

Modeling the plane includes not only objects built upon a plane foundation, as saucers, plates, etc., but also those where the design is cut into the surface, as a watch or leaf. In short the crude beginnings of intaglio and relievo. The methods to be used must be adapted to the object modeled.

Have sphere, hemisphere and circle upon the table. Talk about their points of resemblance. Allow the children to handle each article and to place their fingers upon similar curves. Take the clay hemisphere, which must be firm, and cut circles from it. The teacher does this but not the children. Allow each child to arrange these circles in a hemisphere. Take each alternate circle and show the children the concentric rings. Then distribute clay and permit the children to make circles by cutting the clay, pressing it flat upon the table. They must not be allowed the free use of a knife if very small. When ready to cut off a circle from the hemisphere the teacher stands by and watches the process, and takes charge of the knife. Even wooden knives are only to be given when needed.

TYPICAL OBJECT, SEWING BASKET.

Have the circle and basket upon the table. Talk about the points of resemblance and also the points of difference. Allow the children to handle each article and to place their fingers upon the similar curves. Show the difference between the sides of the basket and the sides of the circle. Cut a circle from paper, it is thinner than the wooden or clay circle. In this way an idea of abstract surface is obtained.

Then during singing distribute clay. Follow Formula I. Having rolled the hemisphere, flatten it carefully so as to preserve the circular shape. Distribute clay again, while singing something about careful work. Roll this clay into a long cylinder or rope to form the side of the basket, which must not be high. Carefully place the cylinder on the edge of the clay circle so that the outside of the rope and the outer edge of the circle are in line. Smooth the edges outside and in. Another piece of clay is given. This is divided into four tiny bits. Four spheres are rolled and two flattened for pockets. These are placed between the pockets for a pincushion. The fourth is flattened a very little and placed opposite the pincushion for a needle-book.

TYPICAL OBJECT, SEWING BASKET.

TYPICAL OBJECT, BIRD'S NEST.

Have the circle and the bird's nest upon the table. Talk about the resemblance in form to a circle. Bring out the fact from the children that if the bird's nest were flattened it would be a circle. A strong moral lesson about the nest being the home of the little birds and consequently sacred should be impressed upon the little ones.

Distribute clay. Follow Formula I. Having the sphere, flatten it into a little more than a quarter of an inch in thickness. Another piece of clay is given. This is rolled into a rope comparatively thick and large. This is placed about the clay circle already formed. The edge of the rope and the edge of the circle are smoothed at the joining. This rope or rim should incline towards the center. More clay is given for the eggs. This is divided and rolled into little spheres, which are placed inside the nest.

TYPICAL OBJECT, BIRD'S NEST.

Leaves are fascinating objects for children to make. At the time for free activity have a number of nearly circular leaves; the violet and ground ivy and some kinds of geranium furnish familiar examples. After the clay circles are formed the addition of stems and the veining of the leaves are easily mastered. The serrated edges can be compared and the different kinds of veining, but do not allude to botanical facts not patent to the child's eyes or fingers.

A wreath of leaves may be mounted on a clay circle and called a picture frame. Buttons on a card, dish covers, and Japanese fans, are simple circular objects to suggest to the children for free exercise. The temptation to the child to try to make flowers is almost irresistible. Such experiments in the hours of free exercise may be allowed, but the result is rarely satisfactory, the limitations of the clay not permitting realistic rendering, except in very low relief.

SECOND SERIES.

NORMAL TYPE,
Oblate Spheroid.
TYPICAL OBJECTS,
Turnip,
Inkstand,
Vase.

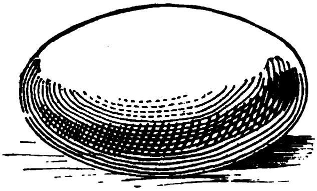
NORMAL TYPE,
Half-oblate Spheroid.
TYPICAL OBJECTS,
Cat,
Rabbit,
Dog.

NORMAL TYPE,
Ellipse.
TYPICAL OBJECTS,
Hand Mirror,
Meat Plate,
Pudding Dish.

NORMAL TYPE, OBLATE SPHEROID.

This series of exercises is divided into three parts. The oblate spheroid or whole solid, the half-oblate spheroid or half-solid and the ellipse or plane.

Have the sphere and oblate spheroid upon the table. Let the children compare these, showing the resemblance and the difference. Allow every child to handle both forms that the comparison may be by touch as well as sight. If the forms are of wood let each child sound them separately upon the table. Have the children name objects like the spheroid. Then distribute clay.



NORMAL TYPE, OBLATE SPHEROID.

FORMULA II.

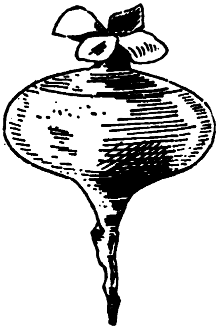
Follow Formula I. Having the sphere, press it steadily between the palms of both hands until it is flattened on both sides. It will then look very much like a turnip in shape. Be careful in pressing it not to destroy the curves, as there are no edges on an oblate spheroid.

Under the oblate spheroid we classify those objects which most closely resemble in form an oblate spheroid or flattened sphere. This solid is referred to as a normal type and typical objects are based upon it.

TYPICAL OBJECT, TURNIP.

Have the oblate spheroid and turnip upon the table. A turnip that is sprouted and has a small root is prettier for the children to make than one without these adjuncts. Compare these, note the points of resemblance and name those objects that are similar.

Then distribute clay. Follow Formula II. (As seen on preceding page, this includes Formula I.) Then distribute small bits of clay. Let each child divide his clay into four unequal pieces. Roll the smallest one into a short rope, one end thinner than the other. Attach this to one of the flat sides of the turnip for its root. Roll each one of the remaining bits of clay into a short cylinder or rope. Take this between the thumb and fingers of both hands and give it a slight twist pressing hard enough to flatten it. This will produce the effect of a very passable conventional leaf. Pinch these three leaves together at one end spreading them apart in a natural manner and fasten this to the end of the turnip opposite the root.

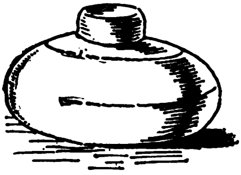


TYPICAL OBJECT, TURNIP.

TYPICAL OBJECT, INKSTAND.

Have the oblate spheroid and inkstand upon the table. Compare these in the usual manner by talking about them. Name objects like each. The reason for this is that an object of use like the inkstand may suggest familiar things to the child's mind, which the oblate spheroid would not.

Distribute clay while the children sing. Follow Formula II. Place the oblate spheroid upon the table and give each child a very small bit of clay and with this, repeat Formula II. The children then, each, have a large and a small oblate spheroid.

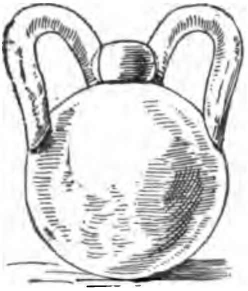


TYPICAL OBJECT, INKSTAND.

Place the small one exactly in the center of the upper surface of the large one. This forms the mouth or top of the inkstand.

TYPICAL OBJECT, VASE.

Have the oblate spheroid and vase upon the table. Compare the two and name objects like each. Distribute clay while singing. Follow Formula II. This gives the oblate spheroid. Then distribute small bits of clay, and follow Formula II again. This gives a small oblate spheroid. Have the children stand the large spheroid vertically so that the flat part is fronting them. Then place the small spheroid on the top of the large one. This forms the mouth of the vase. Distribute a small bit of clay to each child. Roll this into a rope between the palms. Divide into equal lengths. Take one piece of rope and fasten one end to the side of the vase, the other end to the top of the mouth.



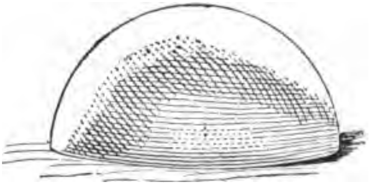
TYPICAL OBJECT, VASE.

Attach the other piece of rope in the same way on the other side. If the ropes have been rolled rather long, arrange the handles on the straight sides of the vase; if short, on the curved side.

During the period for free exercise a tomato or a hassock may be suggested to the children. Other simple objects will suggest themselves to both teacher and pupil.

NORMAL TYPE, HALF-OBLATE SPHEROID.

The half-oblate spheroid used as the base of the following exercises is obtained by dividing the oblate spheroid through its greatest length so as to show elliptical faces.



NORMAL TYPE, HALF-OBLATE SPHEROID.

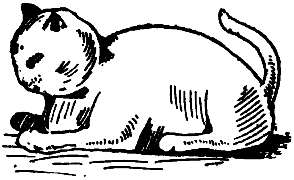
Have the oblate spheroid and two half-oblate spheroids upon the table. Let the children compare them in the same way that the spheres and hemispheres were compared. Give ample time for handling and naming similar objects.

In the exercises on this half-oblate spheroid only animal forms are given. The results obtained are not expected to be perfect. The making of familiar animals is a valuable exercise for the child, both for the interest which it excites and as a stimulus to observation. The resemblance to nature, even with the simple contour that the child can secure, is practically correct.

Under this half-oblate spheroid we classify those objects which most nearly resemble it in shape. This half-oblate spheroid is referred to as a normal type and typical objects are based upon it.

TYPICAL OBJECT, CAT.

Have the half-oblate spheroid upon the table, also the clay or wax cat previously made by the teacher. Compare the two objects and talk about the cat, its form and curves. During this talk the fact will or should be brought out that in different positions the cat represents different forms. Kitty rolled up with her head next to her tail resembles most a ball of fur; when lying at rest or watching, she resembles the half-oblate spheroid and when leaping a cylinder. This kitty is going to be made at rest.



TYPICAL OBJECT, CAT.

Distribute the clay half-oblate spheroids already prepared. While the children sing, distribute small pieces of clay to each child. A little practice by the teacher is necessary so that too much may not be given; about one-fourth as much as is in the half-oblate spheroid is sufficient. This is for the cat's head. Follow Formula I with the clay just given, while the half-oblate spheroids remain untouched upon the table, the elliptical side down. Flatten the sphere until it is almost a hemisphere. Attach it to one end of the half-oblate spheroid a very little higher than the top of the back; putting it in just the right position constitutes the secret of resemblance. A small bit of clay is then given to each child for the cat's ears. This is divided and pinched into small egg-shaped pieces and attached to the head, with the pointed ends toward the front. When the ears are fastened to the head they stand out roundly. Notice a cat and have the children do so, telling the result of their observations. A piece of clay is then given about half the size of the head. This is divided and rolled into two ropes thick and short, one end of each being much smaller than the other. The large ends are attached to the half-oblate spheroid, a little back of the head on each side, forming the fore legs. Press them down and smooth them lightly into the body of the cat; stretch the long parts out by the side of the head for the paws, not letting them project too far to look natural. If necessary pinch off a bit of the clay.

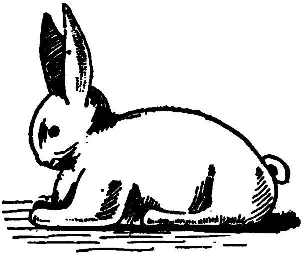
Another bit of clay is then distributed. It is divided and rolled the same way, care being taken not to flatten the broad end too much. These pieces are attached to the other end of the body, forming the hind legs and haunches, just as the fore legs and shoulders were made. Another bit of clay is given and rolled into a rope of equal thickness from end to end. This makes the tail and should be attached to the body at nearly the same level, as the head. It may be curled out, and up or down on one side by the paws. The cat when completed can be slipped on a piece of cardboard and removed to a safe place. The cat's eyes and mouth may be marked with a pin. The eyes in a side view appearing halfway between the ears and mouth.

Where the half-oblate spheroid has been made with very full round curves, it is sometimes easier to get the likeness of the cat with a sphere for a head.

TYPICAL OBJECT, RABBIT.

Have the half-oblate spheroid upon the table, also a clay or wax rabbit previously made by the teacher. Compare the two objects and talk about the rabbit and its peculiarities. Is it wild or tame? How does it look when running? Then tell the children that this rabbit is resting quietly.

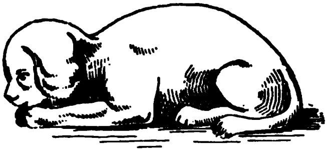
Distribute the half-oblate spheroids already prepared. These are placed before each child, the elliptical face down. While the children sing, distribute clay for the head. Follow Formula II. This gives a small oblate spheroid. Let the children flatten it a little on one curved side, so as to resemble a half-oblate spheroid. This is for the head. Attach it to the large half-oblate spheroid, so that the head may appear slightly inclined, and have very nearly half of it above the body. A piece of clay is given for the ears. This is rolled into a rope, flattened and divided into pieces, each as long as the head. These are placed at the side of the head. Stand them up, incline them a little forward and have the lowest part of the ear about on a line with the back. If they are too long pinch off a little, leaving the ends of the ear with a rounded point. Make the paws and legs of the rabbit by the directions given for the cat. A piece of clay is given for the tail. This is made like the head and attached to the end of the body nearly flat. The eyes are made with a pin near the front of the head and nearly on a line with the bottom of the ears. The mark for the mouth is nearer the body than the front of the face.



TYPICAL OBJECT, RABBIT.

TYPICAL OBJECT, DOG.

Have the half-oblate spheroid and dog upon the table. Compare the two. Talk about dogs their form and character.



TYPICAL OBJECT, DOG.

Distribute clay half-oblate spheroids while the children sing. These rest upon the table while clay for the head is being given;

with this bit of clay follow Formula I, and flatten it upon one side a very little. Attach this flat part to the half-oblate spheroid, the top of the sphere being somewhat below the top of the body. Press it on lightly and smooth it down, to make the head. Distribute clay for the legs. Make these in the same way that the cat's were made. Then give a small bit of clay for the ears. Roll two small spheres, flatten into egg-shape and attach to the broad part of the dog's head, so that the ears hang down nearly straight and fall over the joining of head and body, a little in front. The deep marks for the eyes, nose and mouth are made with a large pin. The eyes are midway between the top and bottom of the head, and the marks for the nostril and mouth are made very low down. The resemblance to the dog is formed by the correct placing of the head and ears, and the imitation of the large frontal bone is made by placing eyes, nose and mouth low down upon the sphere. A closer imitation can be secured by adding a bit of clay for the dog's nose, as is the case in the cut, but it is much better to keep the children to the broad facts of form and the relation of parts than to attempt too much of the detail. It must be remembered that art had its rude beginning and the development of the child is along the racial path.

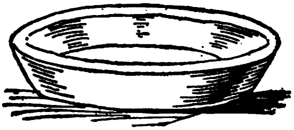
NORMAL TYPE, ELLIPSE.

The ellipse is a plane surface which may be described as a lengthened circle. It is familiar to children in ordinary eye-glasses or spectacles.

TYPICAL OBJECTS, HAND MIROR AND MEAT PLATE.

The exercises on the plane were fully elaborated under Circle. In taking the ellipse as a normal type it is only necessary to substitute spheroid, half-spheroid and ellipse in place of sphere, hemisphere and circle, and follow the method of work given under Circle.

The typical objects to be made from the ellipse are so simple as to need no special directions. With the clay ellipse as a foundation the directions given under Circle apply with equal force to articles to be formed from the ellipse; all the forms made being built on the plane. All typical objects referring to the ellipse as a normal type must be low and flat, as well as elliptical.



TYPICAL OBJECT, PUDDING DISH.

Leaves of elliptical form are numberless and provide a most interesting study for the child. Such leaves as are to be imitated should be brought to the table, that the original also may be seen while at work. Elicit from the child all the facts about the leaf that can be seen, felt, smelt or tasted; this will give him a lively interest in the exercises, as well as a foundation for future classification.

[illegible] flatten it [illegible]
[illegible] late [illegible]
[illegible] the top of the [illegible]
[illegible] to make the [illegible]
[illegible] the same way [illegible]
[illegible] bit of clay for [illegible]
[illegible] shape and [illegible]
[illegible] the ears hang [illegible]
[illegible] head and body [illegible]
[illegible] eyes, nose and mouth
[illegible] way between the
[illegible] for the nostril and
[illegible] to the dog
[illegible] and ears, and the
[illegible] eyes, nose
[illegible] imitation can
[illegible] nose, as is the
[illegible] children to the
[illegible] to attempt
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[illegible] described as a
[illegible] ordinary eye-

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The [illegible]
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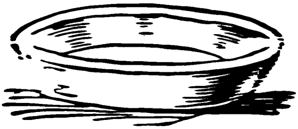
plane, hemisphere and cone, and follow the method of is given under Form.

The typical objects to be made from the ellipse are so simple as to need no special directions. With the clay ellipse as a [illegible] the directions given under Form apply with equal



TYPICAL [illegible] FORM—DISH.

force to articles to be formed from the ellipse; all the forms made being built on the plane. All typical objects referring to the ellipse as a normal type must be low and flat as well as elliptical.

Leaves of elliptical form are numberless and provide a most interesting study for the child. Such leaves as are to be imitated should be brought to the table that the original also may be seen while at work. Elicit from the child all the facts about the leaf that can be seen, felt, smelt or tasted; this will give him a lively interest in the exercises, as well as a foundation for future classification.

THIRD SERIES.

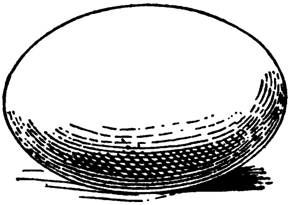
NORMAL TYPE,
Prolate Spheroid.
TYPICAL OBJECTS,
Soup Tureen,
Pig,
Elephant.

NORMAL TYPE,
Half-prolate spheroid.
TYPICAL OBJECTS,
Child's Cap,
Soap Dish,
Fruit Dish.

NORMAL TYPE,
Ellipse.
TYPICAL OBJECT,
Turtle.

NORMAL TYPE, PROLATE SPHEROID.

This series of exercises is divided into three parts. The prolate spheroid or whole solid; the half-prolate spheroid or half-solid, and the ellipse or plane.



NORMAL TYPE, PROLATE SPHEROID.

Have the sphere and prolate spheroid upon the table. Compare them together, letting each child handle both forms. Have the children tell wherein they are alike and show how the two objects differ. Lead the little ones to express the fact that the difference is in the length. The children cannot fail to see this, but to tell it in their own words is a valuable exercise. After the comparison, have the children name objects like the prolate spheroid. Then distribute the clay and follow Formula III.

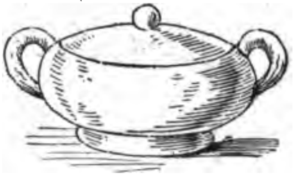
FORMULA III.

First follow Formula I. Having the sphere made, roll it gently between the palms of the hands, pressing upon it so as to lengthen it into a shape similar to a rather long watermelon, or muskmelon. Be careful not to allow either end to become pointed. The curves should be full and round.

Under the prolate spheroid we classify those objects which in form most closely resemble a prolate spheroid or lengthened ball.

TYPICAL OBJECT, SOUP TUREEN.

Have the prolate spheroid and soup tureen upon the table. Compare them together, talking especially about the resemblance in form between the body of the tureen and the normal type, ignoring for the time the incidentals of base, handles and lid. A little story may be told of a bowl of soup, and the different kinds of vessels to hold it, coming to the tureen as the most convenient of all. This will require some preparation on the part of the teacher.



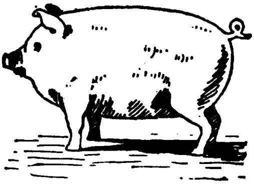
TYPICAL OBJECT, SOUP TUREEN.

Distribute clay and follow Formula III. Having the large prolate spheroid made, distribute a small bit of clay, make a small spheroid of this, flatten it upon the table and place it under the large prolate spheroid for a base. Then with a large pin mark a line about one third of the distance from the top of the tureen to show where the lid joins the body. The lid should be about half as deep as the bowl of the tureen. Then distribute another bit of clay for the handles, roll this into a rope and divide in halves, making the pieces of equal length. Attach one end of each of these to the body of the tureen, opposite each other and just below the mark for the lid, making them curve out and up to a level with the top of the body, and attach the other ends to the lower part of the tureen. A bit of clay rolled into a sphere and placed in the centre of the lid completes the tureen.

TYPICAL OBJECT, PIG.

Have the prolate spheroid and the pig upon the table. Compare the forms, letting the children handle and talk about both.

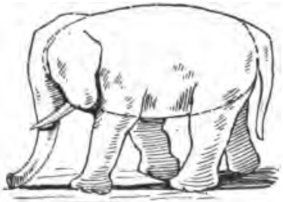
Distribute the clay and follow Formula III. Next distribute a small bit of clay for the snout. Roll this into a sphere, pinch it to a point and attach it to one end of the spheroid, inclined up a very little. Give out a small bit of clay for the tail. Roll this into a rope and attach to the spheroid, opposite the snout, curling it up in a small, tight curl. Another bit of clay is then given out and rolled into a rope. Divide this into four equal lengths and attach them to the body of the pig, well underneath and some distance from each end of the spheroid, for the legs. Two small bits of clay are rolled into spheres, pinched to a point and attached to the head very near the line of the back, for the ears, which should point forward. The mark for the eyes should be on a line with the upper part of the snout.



TYPICAL OBJECT, PIG.

TYPICAL OBJECT, ELEPHANT.

Have the prolate spheroid and the elephant upon the table. Compare them together and name objects like each. Let the children handle both normal type and elephant.



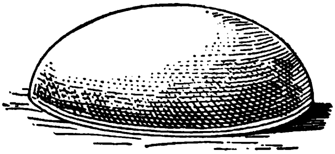
TYPICAL OBJECT, ELEPHANT.

Distribute the clay and follow Formula III. Having the spheroid made, distribute a small piece of clay for the head and trunk, roll it into a rope about as long as the spheroid, leaving one end large and round. Take the large end and fasten it to the spheroid at one end, and curl the small end of the rope out, thus forming the head and trunk. A tiny bit of clay rolled into a small rope and divided in halves makes the tusks. These are attached where the trunk separates from the head and body. Distribute another piece of clay, divide it into two equal parts and roll into spheres. Flatten these out very thin into irregular shapes for ears and attach to the head, the lower part of the ear hanging a little to the front. A piece of clay is then given out for the legs. Roll this into a short, thick rope, divide it into two equal parts and attach on one side of the elephant in front, just below the ear, and also at the back very near the end of the body. Distribute more clay and repeat this process on the other side. Arrange the legs, on one side pointing forward and the other pointing back. It is a peculiarity of the elephant, that in walking it moves first the feet upon one side, then those upon the other. A small bit of clay is rolled into a rope for the tail; one end should be larger than the other. Place the small end to the body on a line with the back. It should hang nearly to the feet. If the body is too heavy and mashes the legs, some small sticks may be run through the latter to support the body, but this ought not to be necessary, although in accordance with the practice of artists when modeling.

NORMAL TYPE, HALF-PROLATE SPHEROID.

This half-solid for convenience is referred to as a normal type and typical objects are based upon it. The half-prolate spheroid used in the following exercises is obtained by dividing the whole spheroid in half through its greatest length, thus showing an elliptical face on each half-solid.

Have two prolate spheroids upon the table, one whole, the other divided in half. Compare the whole one with the half, then with both together in different positions. The relation of quantity, bulk or size to form is thus shown to the child in an interesting way. Let the children name objects resembling the half-prolate spheroid. Compare the plane and curved surfaces. Notice the ellipse and compare it with a circle. Show the children a circle in perspective and let them tell what it looks like. A little talk about transitory and permanent things will be in order here. Do not slight this part of the exercise.

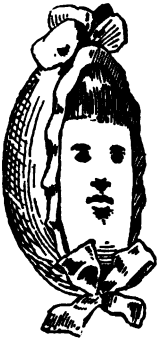


NORMAL TYPE, HALF-PROLATE SPHEROID.

Under the half-prolate spheroid we classify objects which resemble it most closely in form.

TYPICAL OBJECT, CHILD'S CAP.

Have the half-solid and child's cap previously prepared upon the table. Allow the children to compare them by handling each object.



TYPICAL OBJECT, CHILD'S CAP.

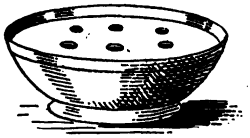
When all have done this distribute clay. Let each child have enough to make a half-prolate spheroid. Follow Formula III.

Having the spheroids made, the children take them carefully in the right hand and tap the lower part upon the table three times. This will give a very good half-prolate spheroid and will make the body of the cap. When all have done this, distribute clay for the ruching. Roll this clay into a rope long enough to encircle the edge of the plane surface. Make the ends of the rope thinner and smaller than the middle. Put this around the half-solid, joining it smoothly to the ellipse, having the thick part of the rope at one end of the plane to form the top of the cap. Join the ends of the rope together. It must stand up like a little wall around the flat part of the half-prolate spheroid, and will be thicker at one end of the ellipse than at the other. Then with the thumb and finger pinch this little wall into a ruffled effect, something as an edge is made on piecrust, or look at a bit of ruffling and try to imitate its ins and outs. Then distribute a small bit of clay. Roll into a rope and flatten upon the table. Take it up and make of it a bow, with four equal loops and no cross piece. Set this on top of the cap, bending the loops back towards the crown. This bow will look somewhat like a butterfly which is ready to light. Then distribute another bit of clay, and make of this a bow with two loops and two ends, to represent the tied strings of the cap, and fasten them where the small ends of the ruffling meet. Then with a large pin mark a little curly bang, and also the eyes, nose and mouth. Have the length of the nose equal to the space between the eyes or less; place a mark like a brace ⏞ for the mouth, just below the nose. This will give a childish look to the crudest face, and the semblance of a "dolly" is delightful to the child.

TYPICAL OBJECT, SOAP DISH.

Have the half-solid and soap dish upon the table. Compare them together.

Distribute clay half-solids, and also a small bit of clay. With the latter follow Formulas I and II, which give a small prolate spheroid. Flatten this into an elliptical form and place under the half-spheroid for a base. Then distribute more clay and roll into a rope; flatten it slightly and press around the edge of the spheroid, somewhat like a wall, enclosing the plane



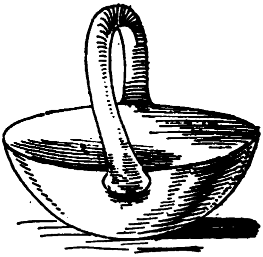
TYPICAL OBJECT, SOAP DISH.

surface. Be careful to keep it the same size all around. Then with a pencil point (a pin would be too small) prick seven large holes in the flat part of the dish.

TYPICAL OBJECT, FRUIT DISH.

Have the half-solid and fruit dish upon the table and compare them together.

Distribute the clay half-prolate spheroids and also clay for the handle. This is very easily made, for when the handle is attached to the half spheroid, across the plane, the resemblance is complete. A great many articles of table-ware can be quite as simply made, by a slight variation. These articles are valuable for suggestions during the period for free exercise.



TYPICAL OBJECT, FRUIT DISH.

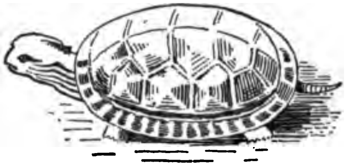
NORMAL TYPE, ELLIPSE.

Have the half-prolate spheroid and ellipse upon the table. Allow the children to handle them and name the points of resemblance. Then form this ellipse in the same way as the ellipse was constructed from the half-oblate spheroid.

TYPICAL OBJECT, TURTLE.

Have the half-prolate spheroid, ellipse and turtle upon the table. Let the children handle them and show their connection. Fit one upon the other, the ellipse on the plane surface of the half-solid.

Then distribute clay for the turtle. Follow Formula III and the result is a prolate spheroid. Flatten this upon the table until less than half an inch thick. Press the outer edge quite flat, making a curve for the turtle's back. With a large pin draw parallel lines across the turtle's back in both directions, so as to make irregular squares. Do not make the lines too straight. Distribute a small piece of clay, divide into four equal bits, roll into spheres, flatten a little between the thumb and finger and attach to the turtle well under the body, for the legs. Distribute a small piece of clay, roll into a small sphere, flatten a little and pinch to a point at one end for the head. Distribute another small bit of clay, roll into a small rope and pinch to a point for the tail. The head and tail, like the legs, must be attached well under the body.



TYPICAL OBJECT, TURTLE.

During the time for free activity any simple objects based upon this ellipse may be made.

Eyeglasses are simply small prolate spheroids flattened and connected by a slender rope of clay. A photograph frame may be made of an ellipse of clay, with a support for the back. Leaves elliptical in form may also be imitated.

Free exercises on the prolate spheroid will probably result in the most grotesque representations. The teacher must not be discouraged, but be on the watch to show the children how to express their ideas. A simple touch may transform the attempted horse or bird into something wonderfully like the real animal, despite its crudity. Clay is a most responsive material and gives results that are almost magical to the earnest worker.

FOURTH SERIES

NORMAL TYPE,
Ovoid.
TYPICAL OBJECTS,
Pear,
Duck,
Water Pitcher.

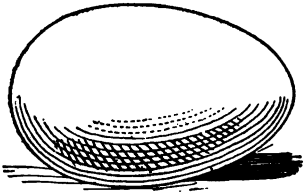
NORMAL TYPE,
Half-Ovoid.
TYPICAL OBJECTS,
Mouse,
Gravy Dish.

NORMAL TYPE,
Oval.

NORMAL TYPE, OVOID.

This series of exercises is divided into three parts, the ovoid, the half-ovoid and the plane or oval.

Have the prolate spheroid and ovoid upon the table. Let the children handle and compare these, pointing out the difference.



NORMAL TYPE, OVOID.

Have each child name some object like each form. If of wood let the forms be sounded separately upon the table. Next distribute clay for Formula IV.

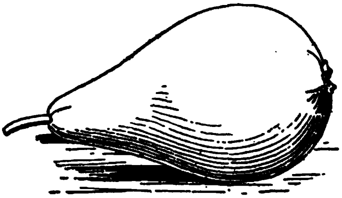
FORMULA IV.

Begin with Formula I. Having the spheroid nicely made, take it between the palms, the thumbs being up, and roll it gently, exerting a pressure with both palms upon one end of the spheroid. This will tend to reduce the size of this end. Three or four rolls will produce a perfect ovoid, while more will be apt to spoil it.

Under the ovoid we classify those objects which most closely resemble the complete ovoid in form.

TYPICAL OBJECT, PEAR.

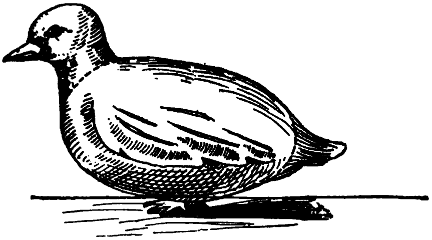
Have the pear and ovoid upon the table. Compare them as usual. To make the pear, distribute clay, follow Formula IV, and press carefully near the small end of the ovoid to shape the neck of the pear. A bit of clay is next given out and rolled into a rope. This is attached to the small end of the ovoid for a stem. A very tiny bit of clay may be rolled into a sphere, flattened into a circle and attached to the pear opposite the stem. This is the little spot where the flower petals fall off.



TYPICAL OBJECT, PEAR.

TYPICAL OBJECT, DUCK.

Have the ovoid and duck upon the table. Compare them in the usual way. This will result in a talk about other fowls and birds. Dwell upon the form of such birds as are like the ovoid. Nearly all birds can be made upon this base by selecting a certain position, usually that of rest.



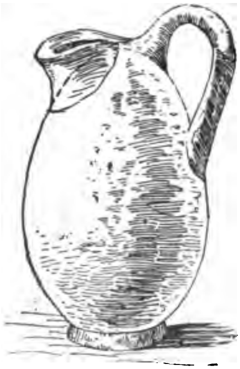
TYPICAL OBJECT, DUCK.

Distribute clay and follow Formula IV. Then distribute more clay and with this, form a small ovoid. Attach this to the broad end of the large ovoid. The head must be nearly all above the body and be very nearly horizontal in position. Distribute a small bit of clay for the tail. Make of it an ovoid, flatten it slightly and attach it to the body of the duck by the small end. The tail must be less than half the length of the head and project from the body horizontally. Distribute another small bit of clay for the feet. Divide it into two parts and roll it into very short ropes. Hold one end of the rope between the thumb and finger, and flatten the end upon the table into a circular disk. Repeat this with the other rope. Then with a blunt stick or pencil mark the lines showing the webbed construction of the foot. Attach the feet under the body. The legs should be so short as to be scarcely seen.

A study of birds will show how they can be formed in clay, the variety being in the conformation of the head. A round head upon the ovoid gives a dove. The wings of the duck and of most birds should be simply outlined, marking the direction in which the features lie. A short cylinder or rope is sometimes necessary to complete the neck, though in a goose or swan this would be long.

TYPICAL OBJECT, WATER PITCHER.

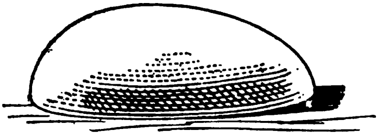
Have the ovoid and pitcher upon the table. Compare carefully and notice how the joining of the handle and spout partially conceals the small end of the ovoid. Show how the convex surface passes into the concave. Then distribute clay. Form the ovoid by Formula IV. Then distribute a small piece of clay and follow Formula II. This gives a small oblate spheroid. Place the ovoid upon it, broad end down, small end up. A little pressure will make it stand firmly. Distribute a small bit of clay and follow Formula III. This gives a prolate spheroid. Flatten into an elliptical form and join it carefully to the small end of the ovoid and press the mouth into shape, down and out. Distribute another bit of clay and roll into a rope; attach opposite the spout and at the base, making the loop of the handle high or low, as looks best.



TYPICAL OBJECT,
WATER PITCHER.

NORMAL TYPE, HALF-OVOID.

The half-ovoid used in the following exercises is obtained by dividing the ovoid in halves from the small end to the broad end, so that each half has a perfect oval face. This half-solid for convenience is referred to as a normal type and typical objects are based upon it.



NORMAL TYPE, HALF-OVOID.

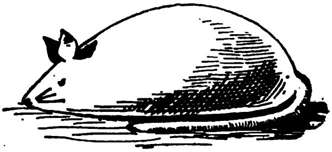
Have the ovoid and two half-ovoids upon the table. Compare the ovoid and half-ovoids, calling attention to the flat face and oval curve. Unite and separate the half-ovoid, allowing time for each child to do this.

Under this half-solid we classify those objects which most nearly resemble it in form.

TYPICAL OBJECT, MOUSE.

Have the clay half-ovoids and mouse previously prepared for the children.

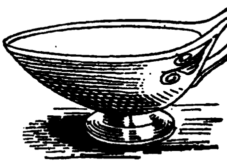
Distribute the half-ovoids. Distribute a small bit of clay for the ears. Divide this in two pieces and form tiny ovoids, following Formulas I and IV. Flatten these and attach to the small end of the ovoid, placing the broad part of the ears next to the head and standing them up nearly straight. Distribute another bit of clay and roll into a slender rope nearly as long as the ovoid. Attach to the broad end and curl about the body. Mark the eyes a little below and in front of the ears.



TYPICAL OBJECT, MOUSE.

TYPICAL OBJECT, GRAVY DISH.

Distribute the clay half-solids, and also a bit of clay for the base. With the small piece of clay follow Formulas I and III. This gives a small prolate spheroid. Flatten it slightly. Then place the half-ovoid upon it with the flat surface up and center to center. Distribute a small bit of clay and roll into a rope for the handle. Attach one end of it to the flat surface of the gravy dish at the broad end, curve the rope out and down and fasten midway between the base and the top.



TYPICAL OBJECT, GRAVY DISH.

NORMAL TYPE, OVAL.

Have the half-solid and oval upon the table. Distribute half-solids of clay. Let the children flatten these into the oval. It is well to have the half-ovoids smaller than if they were not to be flattened.

Many simple articles can then be imitated, as photograph frames, spectacles and dishes; fans are made by the mere addition of a handle. Exercises on leaves are best for the concert work. Children delight in making a number of these and arranging them in conventional forms for frieze or rosette. This is excellent artistic training.

FIFTH SERIES.

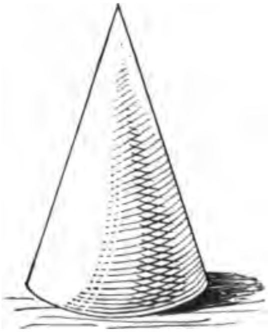
NORMAL TYPE,
Cone.
TYPICAL OBJECTS,
Funnel,
Oil Can.

NORMAL TYPE,
Frustrum of a Cone.
TYPICAL OBJECTS,
Wineglass.
Coffee-pot,
Churn,
Water Can,
Opera Glasses.

NORMAL TYPE, CONE.

In the cone we have a departure from the pure curved solid. Its flat face and curved edge give it a different range, both as regards beauty and use.

These exercises are divided into three parts: The cone, conoid and frustrum.



NORMAL TYPE, CONE.

Have the sphere and cone upon the table. Let the children handle and compare them. Call attention to the circular face and edge, and notice the point. Name objects like the cone. Distribute clay for Formula V.

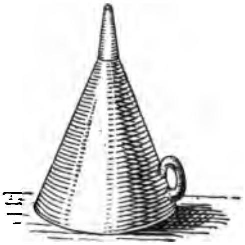
FORMULA V.

Follow Formula I. Then take the sphere between the palms of the hand, with the thumbs up, and exert a gentle pressure on the clay to shape it to a point. Roll the sphere between the palms and keep it in one position, so that the flattening process will bear equally on all parts. A very few moments will produce a cone-like figure with a curved base. This can be flattened by tapping it upon the table. Rolling it sidewise a few times upon the table will give the straight effect necessary to the perfect cone. Be careful not to get the point too long.

Under this solid we classify those objects which in form most closely resemble a cone.

TYPICAL OBJECT, FUNNEL.

Have the cone and funnel upon the table. Distribute clay and follow Formula V.



TYPICAL OBJECT, FUNNEL.

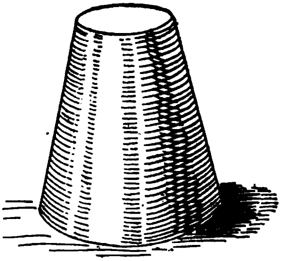
Distribute a small bit of clay, divide it in two pieces, and roll one piece into a short rope. Attach this to the point of the funnel. Roll the other piece into a rope, make of it a circular ring and attach it to the broad part of the cone.

TYPICAL OBJECT, OIL CAN.

Following the directions given for the funnel, an oil can is easily made. Place the handle on the side of the cone and the can is complete.

An hour-glass is made by placing two cones point to point.

NORMAL TYPE, FRUSTRUM OF A CONE.



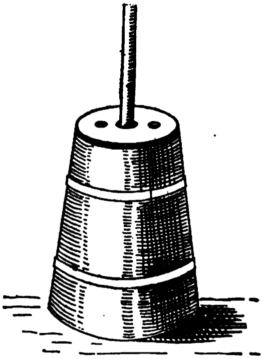
NORMAL TYPE, FRUSTRUM OF A CONE.

The frustra of the cone are prolific in forms of domestic art. The frustrum of a cone is made by cutting off the point of the cone.

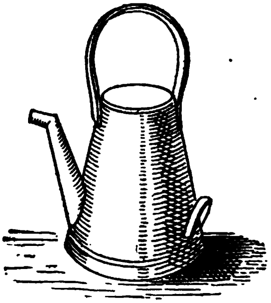
TYPICAL OBJECTS.

Typical objects based upon the frustrum of the cone are so easily made that detailed descriptions are unnecessary and merely seeing the objects is sufficient, after the previous training.

The addition of a straight handle, projecting vertically, to the completed frustrum of a cone makes a churn, or placing handles and a spout in their proper places produces a water can.

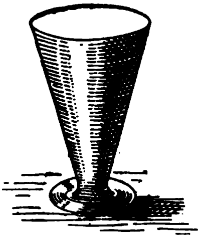


CHURN.



WATER CAN.

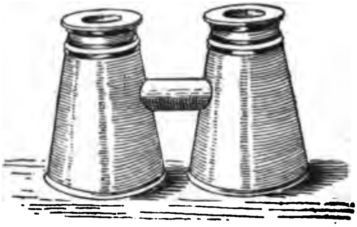
A wineglass is made by adding a base to the frustrum, and the addition of a handle and a spout makes a coffee-pot.



WINEGLASS.

COFFEE-POT.

Connect two similar frustra by a short rope of clay and the result is a pair of opera glasses.



OPERA GLASSES.

With normal pupils the cone may be cut to show the parabola, hyperbola and ellipse, the latter being an interesting connection with the spheroids.

Pyramids of all kinds may be derived from the cone and are formed by flattening the cone from point to base, upon three or any number of sides.

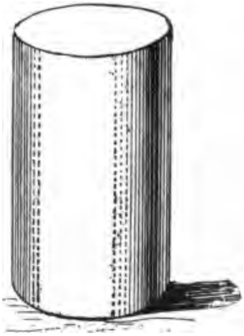
SIXTH SERIES.

NORMAL TYPE,
Cylinder.
TYPICAL OBJECTS,
Pump,
Water Cooler,
Mug.

NORMAL TYPE, CYLINDER.

It is a curious fact that clay itself being an intermediate material, uses most frequently an intermediate form, namely, the cylinder or rope. Clay is simply a vehicle for the expression of an idea which is to have a more permanent form.

The cylinder is a connecting form between nature and art, and through the cylinder art has developed.



NORMAL TYPE, CYLINDER.

From the cylinder, by flattening one or more sides, may be obtained the half-cylinder, the triangular prism and the square prism, with their modifications, and the oblong plane. But as the object of clay modeling is to develop the curve, it is not necessary to dwell upon them. Incidentally, they are used in the subordinate parts of many articles of industrial art, rising to prominence in machinery. In training for pattern-making this form series could be elaborated to good advantage by any teacher, as it is largely used in combinations.

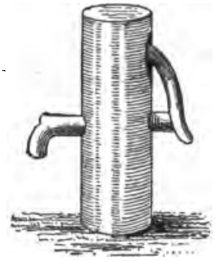
Have the sphere and cylinder upon the table. Compare them and name other objects like the cylinder. Then distribute clay for Formula VI.

FORMULA VI.

Follow Formula I. Having the sphere take it between the palms and with equal pressure roll gently. See that it is turned completely round, and if necessary to move it, be careful to leave no indentations from the fingers. When the sphere has become a long roll, flatten each end by tapping twice upon the table, first one end and then the other. Then roll again between the palms to make the sides straight.

TYPICAL OBJECT, PUMP.

Have the cylinder and pump upon the table. Compare and name other objects like the cylinder. Distribute clay. Follow Formulas I and VI. Stand the cylinder in a vertical position. An irregular bit of clay may be placed under it to represent the ground. This will hold it erect. Distribute more clay. Roll this into a long rope and attach on one side, near the top. Bend down and out into a curve. A tiny bit of clay rolled into a rope and connected with the handle and the side of the pump serves to support the handle. Distribute another bit of clay. Roll into a short rope and attach to the pump opposite the handle, bending it down and out, so as to form an obtuse angle. This makes the spout.



TYPICAL OBJECT, PUMP.

TYPICAL OBJECT, WATER COOLER.

Have the cylinder and cooler upon the table. Distribute clay. Follow Formula VI. Give out a small bit of clay and follow Formula I. Stand the clay cylinder in a vertical position and having slightly flattened the sphere place it on the top of the cylinder. Give out a very small piece of clay. Roll it into a rope. Attach at one side near the base for a faucet, a tiny bit of clay at the bend forming the stop off.

TYPICAL OBJECT, WATER COOLER.

TYPICAL OBJECT, MUG.

It adds to the delight of the child to make a cup or mug for the cooler. This is simply a very short cylinder with a handle at one side.

SEVENTH SERIES.

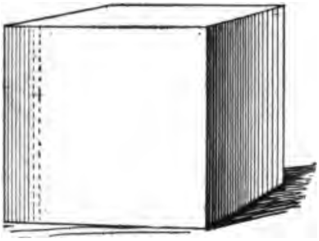
NORMAL TYPE,
Cube.
TYPICAL OBJECTS,
House,
Inkstand.

NORMAL TYPE,
Half-cube.
TYPICAL OBJECTS,
Album,
Washstand.

NORMAL TYPE,
Square.

NORMAL TYPE, CUBE.

The cube is a form very difficult to make in clay. Its use in these exercises is to deepen and intensify the knowledge of the curved solids.



NORMAL TYPE, CUBE.

Have a sphere and cube upon the table. Compare them together, bringing out the points of difference. Kindergarten pupils will do this with accuracy. Name other objects like the cube, objects that are stationary. Allow the children to handle both cube and sphere. Distribute clay for Formula VII.

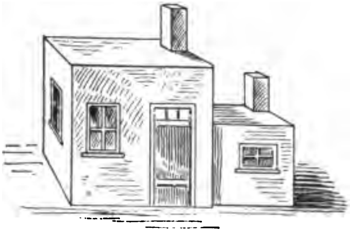
FORMULA VII.

Follow Formula I. Having the sphere nicely made, take it between the thumb and fingers of the right hand and tap twice upon the table. Let the signal for the tapping be a chord upon the piano, or the tinkle of a bell. Then turn the opposite side to the table and tap twice to music. Then holding the flattened side between the thumb and forefinger, tap twice upon the table. Still keeping the same sides between the fingers, turn the last flattened side up and tap the lowest one upon the table. Four sides are now developed from the sphere. Take the cube in the fingers carefully, so as to bring one of the remaining curved sides next to the table, and flatten it by tapping twice. Then turn the cube so as to flatten the reverse side. The six sides are now well defined, but the corners are not formed. To develop the angles, the tapping of the sides must be repeated three times in exactly the same order. If the clay is in good condition and the cube has been carefully held with the upper surface in a plane, parallel to the table, the result will be an exact cube. Even very little children, three years of age, readily learn to make it. But this result fully shows the unfitness of the clay for angular forms, as the slightest touch is liable to spoil it. The teacher must master the formula thoroughly, before attempting to show the children how to make the cube.

Mineral crystals, and in fact all polyhedrons, can be formed from the cubical base. Cutting off the corners of the cube so as to have four triangular pyramids will leave a tetrahedron. The pyramid cut off must have the sides of the base equal to the sides of the cube. Cutting off the corners of the tetrahedron halfway will give the octohedron, and so on indefinitely. Wax or soap is, however, much better than clay for this purpose.

TYPICAL OBJECT, HOUSE.

The cube and house must be upon the table. Compare the two without handling. Name other things like the cube. Then distribute clay and follow Formula VII. Give out a smaller bit of clay and repeat Formula VII. The large cube is for the main part of the house and the smaller one for the kitchen. Join them together, side by side. Then give out a small bit of clay and roll into a thick, stout rope. Divide in two parts for



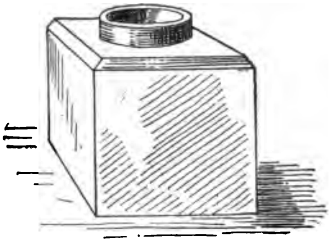
TYPICAL OBJECT, HOUSE.

chimneys. These can be flattened into square prisms, but they will be quite as representative to the child without being subjected to this process, as the distance of a real chimney from the ground obliterates the angles to a great extent. Attach the chimneys to the large and small cube. Doors and windows may be marked off on the sides, according to taste.

This primitive form of a house with its flat roof was probably the very earliest made, and is still extensively used in oriental and tropical countries.

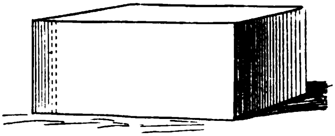
TYPICAL OBJECT, INKSTAND.

Have the cube and inkstand upon the table. Compare them together. Distribute clay and follow Formula VII. Having the cube made, give out a small bit of clay and make of it a short, thick cylinder. Place this on top of the cube, for the mouth of the inkstand, and another tiny bit of clay made into a sphere, just the size of the mouth and flattened, will make the lid or cover.



TYPICAL OBJECT, INKSTAND.

NORMAL TYPE, HALF-CUBE.

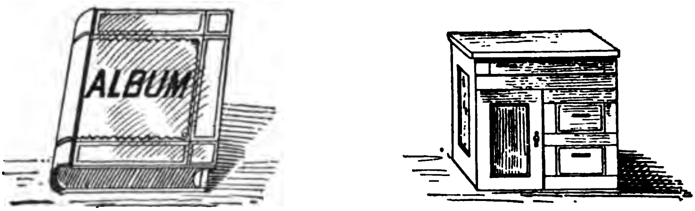


NORMAL TYPE, HALF-CUBE.

In the half-cube we have types of books and furniture of every description. The half-solids must be prepared for little children. Have the cube and two half-cubes upon the table. Compare the cube with one of the half-cubes. Unite and separate them. Call attention to the difference in dimensions.

TYPICAL OBJECTS, ALBUM AND WASHSTAND.

Any simple article, such as an album or a washstand, can be made by marking the lines for opening. The educational value lies in the divisions of the cube and the comprehension of number and dimension.



TYPICAL OBJECTS, ALBUM AND WASHSTAND.

Having compared the half-solids, let each child divide the halves into quarters, then recombine into the cube. Separate the quarters and divide into eighths, each child cutting the clay under the supervision of the teacher. The delight of kindergarten children when they see the duplicate of the Third Gift is something to remember. The cube in clay thus divided must always be rebuilt before the period for free exercise. Then the children may be allowed to reproduce some of the forms of the Third Gift. They will readily do this by piling the little cubes into various forms, such as a cooking stove and a chair.

NORMAL TYPE, SQUARE.

Having the cube, a thin slice may be cut from it and the various forms of the Seventh Gift illustrated. This can be done to advantage in a kindergarten, a diagonal division of the square giving the right-angled and isosceles triangles, and other division giving the equilateral, obtuse-angled and scalene triangles.

COMBINATIONS.

In domestic and industrial art, objects are made of a combination of a variety of parts and sizes of the curved solids. These parts may also be more or less modified from the exact form which is the base. A general determining form is usually found, to which all the different parts bear an exact proportion. In the following exercises, by means of simple combinations, under each series, the child receives practical lessons on the relation of size, position and form which underlie proportion. Practice in breaking the outline of the pure solid and also in realizing abstract form is thus provided.

Combinations may include one or more forms of varying sizes, previously made. Combinations under the first series would include only spheres and circular forms; under the spheroids, spheres as well as the spheroidal forms.

In practice the general form of the object is first sought, then the parts which compose this general form, the relation of these parts to the whole being carefully kept in view. For this reason the normal types must be seen by the child in every exercise.

The necessity for these exercises is very apparent. After each series has been worked thoroughly, time should be devoted to the simple combinations connected with that series. The illustrations and enumerations of the parts are sufficient directions. Combinations may also be originated by the teacher for the children to copy, and they will also originate fresh combinations. Tableware furnishes endless suggestions and models.

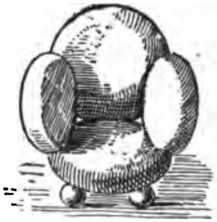
SPHERE.

CUP AND SAUCER.

Combine a hemisphere and a circle and the result is a cup and saucer.

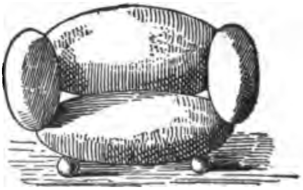
OBLATE SPHEROID.

Take two large oblate spheroids for seat and back, add to these two smaller oblate spheroids for arms and four small spheres for castors, and the result is an easy chair.



EASY CHAIR.

PROLATE SPHEROID.

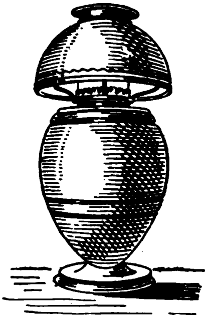


SOFA.

A combination similar to the easy chair is that of two prolate spheroids, two oblate spheroids and four small spheres, producing a sofa.

OVOID AND CONE.

By combining a large ovoid, two circles and one hemisphere we have a lamp.



LAMP.

RED RIDING-HOOD.

Red Riding-hood may be made by combining a cone, half prolate spheroid and two small cylinders for arms.

SONG.

(Air, Hop, Hop, Hop).

Come, come, come,
  Come our jolly clay;
We will take you,
  Gently roll you,
  With you we will play.
  Jolly, jolly clay.

Now, now, now
  We've made a ball of clay;
Handles on you,
  Lid upon you,
What are you to-day
  Jolly, jolly clay?

See, see, see
  A sugar bowl of clay;
Firmly stand you,
  Smoothly look you,
Perfect in your way,
  Sugar bowl of clay.

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